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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
CONGRESSIONAL AND
INTERGOVERNMENTAL
RELATIONS

The Honorable Lamar Smith
Chairman
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Smith:

Enclosed please find the U.S. Environmental Protection Agency's responses to the Committee's questions for the record following the June 22, 2016, hearing titled "Ensuring Sound Science at EPA."

I hope this information is helpful to you and the members of the Committee. If you have further questions, please contact me or your staff may contact Matthew Davis in the EPA's Office of Congressional and Intergovernmental Relations at davis.matthew@epa.gov or at (202) 564-1267.

Sincerely,

Nichole Distefano
Associate Administrator

Enclosure

cc: The Honorable Eddie Bernice Johnson
Ranking Member, Committee on Science, Space, and Technology

QUESTIONS FOR THE RECORD
The Honorable Lamar Smith (R-TX)
U.S. House Committee on Science, Space, and Technology

Ensuring Sound Science at EPA

Monday, August 01, 2016

Questions for Administrator McCarthy

1. In testimony, EPA Administrator McCarthy said that the CARC report on glyphosate was "one step in the process" and that the issue is still "in review at the Agency." The CARC report found that "In accordance with the 2005 Guidelines for Carcinogen Risk Assessment, based on the weight-of evidence, glyphosate is classified as 'Not Likely to be Carcinogenic to Humans.'" This finding by CARC supports previous conclusions by the EPA that glyphosate is safe.

    a. Why does the EPA feel that additional review beyond the CARC report is necessary?

A: The CARC document is one piece of information that the agency is using to inform the cancer classification for glyphosate. The agency is also receiving input from experts at the EPA and across the government, and will get further input from the peer-review process and public comment period.

The Cancer Assessment Review Committee (CARC) report was completed in October 2015 and reflects the panel's review of the existing cancer database for glyphosate at that point in time. The CARC report considered data identified by the International Agency for Research on Cancer (IARC) in its August 2015 monograph. Since then, EPA has been made aware of other existing glyphosate cancer studies submitted to the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) and the European Food Safety Authority (EFSA) to which EPA previously did not have access. EPA is undertaking a comprehensive and thorough review of the cancer database for glyphosate and is currently evaluating the new information available, including data from over 170 epidemiological, animal, and genotoxicity studies not previously available to the agency.

    b. Has anyone at the EPA raised concerns with the work of CARC or with their findings in regard to glyphosate?

A: EPA is working collaboratively with experts on the comprehensive review of the cancer database and the new information. The agency aims to ensure that the data and methodology used in its risk assessment reflects EPA's commitment to quality science.

c. What specific additional steps is the EPA planning on taking in its review of glyphosate?

A: EPA is in the process of rescheduling a meeting of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) to consider and review EPA's Evaluation of the Carcinogenic Potential of Glyphosate. The meeting had been originally scheduled for mid-October 2016, but had to be postponed due to the availability of epidemiology experts. In September, the agency published for review discussion documents, which include the agency's proposed cancer classification, at https://www.epa.gov/sap/meeting-materials-october-18-21-2016-scientific-advisory-panel. After the meeting, the peer review panel will have 90 days to provide EPA with a written report. In spring 2017, once EPA has reviewed the report and made any necessary changes in its risk assessment, EPA expects to release all the components of its full human health and ecological risk assessments for a 60-day public comment period. Once public comments have been reviewed, EPA expects to publish a Proposed Interim Registration Review Decision that may detail specific risk mitigation measures for glyphosate, if needed. The Proposed Interim Registration Review Decision for glyphosate will be available for another 60-day public comment period. An Interim Registration Review Decision will be issued after public comments are considered.

2. The CARC report was dated October 1, 2015, marked final, and signed by all of its authors. Can you explain why the EPA sat on this report for over six months before it was "inadvertently" published online? When, if ever, was the EPA planning on making the CARC report public?

A: As a general practice, we do not publish individual components of risk assessments, for example a cancer assessment, until the entire risk assessment has been completed. In the case of glyphosate, questions were raised about the conclusions of the CARC report and so the EPA conducted a systematic review, to be reviewed by a FIFRA Scientific Advisory Panel, to ensure that our cancer assessment considered all relevant data and was transparent in its interpretations of the agency's cancer guidelines. The EPA posted the "Glyphosate Issue Paper: Evaluation of Carcinogenic Potential" and supporting materials, including the October 2015 CARC report, in September 2016 in preparation for the peer review meeting. In this case, since the agency is taking scientific analysis supporting the proposed cancer classification to a peer review, the relevant components were released ahead of the entire risk assessment. It is worth noting that even based on the more robust scientific dataset, the final conclusion of the September 2016 document did not change from the CARC report.

3. In April 2015, Carissa Cyran, the chemical review manager for the Office of Pesticide Programs at EPA, told the news media "In a few months, EPA will be releasing for

public comment our preliminary human health risk assessment for glyphosate as part of our research program to re-evaluate all pesticides periodically." Over a year later, the public is still waiting for the EPA's review of glyphosate. According to testimony given by EPA Administrator McCarthy, the Agency is now targeting fall 2016 for its release. Can you explain the reason for these on-going delays?

A: As explained previously, EPA originally intended to publish the glyphosate human health and ecological risk assessments for public comment in summer 2015. However, publication was delayed due to additional information and data that became available in 2015 and 2016 from various international organizations. EPA is in the process of reviewing the additional information prior to publication of its own risk assessment, which is currently scheduled for spring 2017.

4. According to Administrator McCarthy, Jesudosh "Jess" Rowland, Deputy Director, Office of Pesticide Programs, Health Effects Division, and lead author of the CARC report on glyphosate, retired from the agency in May 2016. This means that he retired shortly after the CARC report was published and then removed from the website.

a. When did Rowland make the EPA aware of his retirement?

A: He had been discussing retirement for about a year but officially announced it in February 2016.

b. Did Rowland retire on his own accord?

A: Yes.

c. Does Rowland's retirement have anything to do with the CARC report on glyphosate?

A: No.

5. CARC's report not only found that glyphosate is not likely to be carcinogenic, but was also critical of the International Agency for Research on Cancer (IARC) monograph on glyphosate. Two officials from the EPA, Mathew Martin and Peter Egeghy, participated in the IARC monograph on glyphosate.

a. Are there are internal conflicts or disagreements between EPA staff over CARC's review of glyphosate?

A: Questions were raised about the conclusions of the CARC report and so the EPA conducted a systematic review, to be reviewed by a FIFRA Scientific Advisory Panel, to ensure that our cancer assessment considered all relevant data and was transparent in its interpretations of the agency's cancer guidelines. It is worth noting that even based on the

more robust scientific dataset, the final conclusion of the September 2016 document did not change from the CARC report.

6. A letter dated August 31, 2015 from members of this Committee raised concerns that the ozone rule was based on a single study of only 31 individuals.
   a. Given the unreliability of such a small sample size of this study, what assurances can you give the American people that the costs this rule will impose on communities across the nation are grounded in a well-founded scientific basis?
   b. Were additional studies omitted from the decision making process that produced contrary results to the outcome of the rulemaking? If yes, which studies were specifically omitted?

A: The decision to set the level of the 2015 O3 NAAQS at 70 ppb was based on consideration of the full body of health evidence, including controlled human exposure and epidemiologic studies, quantitative analyses of ozone exposures and health risks, advice from CASAC, and public comments. The new evidence in this review includes controlled human exposure studies where healthy people are exposed to ozone under controlled conditions. These types of studies provide the strongest evidence about health effects associated with ozone, and several of these studies indicate the occurrence of respiratory effects following exposures to ozone concentrations below 75 ppb. The new studies considered are most fully described in the Integrated Science Assessment (http://www.epa.gov/isa/integrated-science-assessment-isa-ozone) and are summarized in the overview of the health effects evidence starting on page 65302 of the final rule (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf). The EPA discussed its use of the results of controlled human exposure studies as part of the basis for the proposed decision starting on page 65317 of the final rule, responded to comments on the use of controlled human exposure studies in the section on the need for revision of the 2008 standard starting on page 65329 of the final rule, and responded to comments on the use of the controlled human exposure studies in the revisions to the level of the primary standard starting on page 65356 of the final rule.

7. In our recent committee hearing, Administrator McCarthy alluded to a "weight-of-evidence" approach generated from a "thousand" of studies conducted over decades. Can EPA provide references to the "thousands" of studies conducted on ozone that were taken into consideration for this "weight-of-evidence" approach?

A: The new studies that were considered are most fully described in the Integrated Science Assessment (http://www.epa.gov/isa/integrated-science-assessment-isa-ozone), and are summarized in the overview of the health effects evidence starting on page 65302 of the 2015 final National Ambient Air Quality Standards for ozone (www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf).

House Science, Space, and Technology Committee
Question for the Record to the U.S. Environmental Protection Agency
Congressman Barry Loudermilk (GA-11)

Dear Administrator McCarthy,

I am concerned that the Environmental Protection Agency's (Agency's) broad interpretation of its authority under the Clean Air Act would mean that the Agency believes it can define virtually anything that is within a motor vehicle as constituting a motor vehicle in and of itself.

Throughout the July 13, 2015 Notice of Proposed Rulemaking regarding Greenhouse Gas Phase 2, the Agency relies extensively on its Clean Air Act Section 202 grant of general authority to regulate mobile source emissions as providing a grant of authority to specifically regulate "motor vehicles", which are defined in 42 USC 7550(b) ("The term 'motor vehicle' means any *self-propelled* vehicle designed for transporting persons or property on a street or highway.")

Under this definition, the plain meaning of 'motor vehicle' would logically appear to apply only to a vehicle that moves under its own motive power.

But when respondents questioned whether the Agency possesses Clean Air Act authority to regulate manufacturers of motor vehicle parts that that do not "self-propel" and do not even produce emissions, the agency in reply seems to teeter back and forth between an assertion that individual parts are individual "motor vehicles", while also arguing the sum of the respective parts in total are what create a "motor vehicle". At one point, the Agency argues that having "detachable parts does not mean that either of the parts is not a motor vehicle" (FR Vol. 80, No. 133, 40170). But saying what a thing does not mean fails to prove that the thing does actually mean what the Agency wishes to assert. In fact, it fails to prove that the individual parts are also individual "motor vehicles". If this was to be the case, then a single motor vehicle must be made up of multiple motor vehicles, a curious claim especially considering that some of those supposed motor vehicles are unable to actually self-propel as the definition requires.

The Agency then makes a sum of the parts claim, arguing that when the unit is eventually connected it becomes a "self-propelled vehicle" that meets the definition. In a footnote, the Agency mocks the idea of considering the individual pieces of equipment as individual pieces of equipment ("Indeed, an argument that a trailer is not a motor vehicle because, considered (artificially) as a separate piece of equipment it is not self-propelled, applies equally to the cab-chassis- the tractor. No entity has suggested that tractors are not motor vehicles; nor is such an argument plausible.") But the Agency has previously acknowledged that the individual parts manufacturers and dealers are not the individuals who will actually connect the detachable parts to create a self-propelled unit. (See FR, Vol. 76, No. 179, September 15, 2011 at 57115, "In general, the heavy-duty combination tractor industry consists of tractor manufacturers (which manufacture the tractor and purchase and install the engine) and trailer manufacturers. These manufacturers are usually not the same entity. We are not aware of any manufacturer that typically assembles both the finished truck and the trailer and introduces the combination into commerce for sale to a buyer... There are also large differences in the kinds of manufacturers involved with producing tractors and trailers.")

Elsewhere, EPA veers back to the individual parts argument, claiming that the parts of a "heavy duty vehicle" are "part of a 'motor vehicle.'" But, once again, proving a part is in fact a part does not seem to prove that it is also a "motor vehicle" in and of itself, especially if it is unable to self-propel.

The Agency then states that its definition of "motor vehicle" is consistent with its prior interpretation, suggesting a reasonably long and settled history on the matter. But to buttress its point, the Agency only provided one example of guidance, which dates back only one year despite a lengthy history of the Agency's Clean Air Act interpretation and enforcement. Additionally, the Agency claims that it has regulated other parts in other rulemakings and that those parts makers did not object- although non-objection does not prove the Agency possesses the authority it claims to possess. It simply proves that the objection was not previously raised. Finally, the Agency even relies on its own proposed definition under 40 CFR 1037.801 of "vehicle" to prove a point as though its own proposed regulatory interpretation constitutes a grant of legislative authority.

I am concerned that the Agency believes that there is little or no limit to its authority to interpret the Clean Air Act as it sees fit. Where does the Agency draw the line? Does a glass window constitute a "motor vehicle"? Does an individual axle constitute a "motor vehicle"? Does a turn signal constitute a "motor vehicle"? None of those parts are even detachable from the motor vehicle, but all are necessary to pull freight.

Does the Agency believe its authority is without limit regarding which individual parts will eventually go into a temporarily connected unit that the Agency can regulate as individual motor vehicles where each individual part is the same thing as is the sum of all the parts?

Thank you, and I look forward to your response.

A: The final standards for heavy-duty vehicles and engines (*81 FR 73478, October 25, 2016*) contain emission standards for trailers. The EPA explained that a trailer is an incomplete motor vehicle, and not just a motor vehicle part, and documented that the Clean Air Act provides standard-setting authority over incomplete motor vehicles. The EPA also disclaimed authority to regulate motor vehicle parts as motor vehicles, and specifically stated (in the first chapter of the Response to Comments document (https://www3.epa.gov/otaq/climate/documents/420r16901.pdf)) that tires are motor vehicle parts and hence not within the EPA's standard setting authority for motor vehicles. Thus, the EPA has not asserted authority to regulate individual motor vehicle parts as vehicles.

The preamble to the final rule (section I.F) addresses the question you raise as to where a line is to be drawn between motor vehicles (complete and incomplete) and motor vehicle parts. Rather than paraphrase, here is what the EPA said with regard to that issue:

"EPA thus can set standards for all or just a portion of the motor vehicle notwithstanding that an incomplete motor vehicle may not yet be self-propelled. This is not to say that the Act authorizes emission standards for any part of a motor vehicle, however insignificant. Under the Act it is reasonable to consider both the significance of the components in comparison to the entire vehicle and the significance of the components for achieving emissions reductions. A vehicle that is complete except for an ignition switch can be subject to standards even though it is not self-propelled. Likewise, as just noted, vehicle components that are significant for controlling evaporative emissions can be subject to standards even though in isolation the components are not self-propelled. However, not every individual component of a complete vehicle can be subjected to standards as an incomplete vehicle. To reflect these considerations, EPA is adopting provisions stating that a trailer is a vehicle 'when it has a frame with one or more axles attached'..... EPA acknowledges that lines need to be drawn, but whether looking at the relation between the incomplete vehicle and the complete vehicle, or looking at the relation between the incomplete vehicle and the emissions control requirements, it is evident that trailers and glider kits should properly be treated as vehicles, albeit incomplete ones. They properly fall on the vehicle side of the line. When one finishes assembling a whole aggregation of parts to make a finished section of the vehicle (e.g. the trailer), that is sufficient. You have an entire, complete section made up of assembled parts. Everything needed to be a trailer is complete."

Committee on Science, Space & Technology

"Ensuring Sound Science at EPA"

Questions for the Record to:
The Honorable Gina McCarthy, Administrator, Environmental Protection Agency
Submitted by Ranking Member Eddie Bernice Johnson

1) When industry advocates come to Capitol Hill, the issue of regulatory certainty is routinely brought up. We often hear that a strong market signal allows for smart investment and risk management.

   - Can you discuss the importance of regulatory certainty and the value of a strong market signal to businesses?

   - Overall, what impact do you believe that EPA's current set of proposed regulations would have on the U.S. business community?

   - Would the recommendation by some that we place a moratorium on so-called "midnight regulations" increase or decrease regulatory certainty and private sector investments?

A: EPA also generally hears from industry a preference for regulatory certainty and the importance of understanding the requirements that will need to be met. History has shown that with regard to environmental regulations, industry has routinely been able to comply at a lower cost than was predicted. For example, in 1990, EPA estimated that the cost of compliance with Title IV of the Clean Air Act Amendments of 1990 would be as high as $5.9 billion a year. Three subsequent retrospective studies done by MIT, Resources for the Future, and Stanford University researchers, as detailed in the U.S. government's National Acid Precipitation Assessment Program (NAPAP) 2011 Report to Congress, all conclude the costs were less than half of EPA's estimate. The dramatic improvements in clean air from implementation of the Clean Air Act has also generated huge public health benefits. EPA estimates that air quality improvements led to 160,000 premature deaths averted each year and that total benefits from the Clean Air Act implementation exceeds costs by a factor of more than thirty to one. History shows us that it is possible to protect public health and the environment while maintaining a strong economy, and that remains true today.

Regulatory certainty provides industry with the signal to enable smart investment and risk management. For example, it is much easier to design-in compliance before a new facility is constructed. Even routine technology upgrades can be stifled if industry is uncertain about the regulatory requirements. A moratorium on EPA's proposed regulations could substantially increase regulatory uncertainty, potentially chilling investment decisions.

Finalizing EPA's currently proposed regulations would provide clarity to key industries. Conversely, the public health benefits of these rules as well as the related investments would not occur if the rules were to be delayed. For example, the final fuel economy standards for Heavy Duty trucks, announced jointly by EPA and the Department of Transportation on August 16, 2016, will reduce harmful carbon pollution and motivate truck manufacturers to invest in new technologies. Overall, the final standards are estimated to provide $230 billion in net benefits to society, including benefits to our climate and the public health of Americans. These benefits are estimated to outweigh costs by about an 8-to-1 ratio. Manufacturers all along the heavy duty value chain now have clarity about what will be required through FY 2027 and, especially with the flexibilities provided in the rule, can plan investment for their compliance strategies with real certainty.

2) Why is the Clean Power Plan a lawful exercise of EPA's authority under the Clean Air Act? What is the impact of any delays in its implementation?

A: On February 9, 2016, the Supreme Court stayed the Clean Power Plan (CPP) pending judicial review before the U.S. Court of Appeals for the D.C. Circuit and any subsequent proceedings in the Supreme Court. The EPA firmly believes the Clean Power Plan will be upheld when the courts address its merits because the Clean Power Plan rests on strong scientific and legal foundations. The stay means that no one has to comply with the Clean Power Plan while the stay is in effect. During the pendency of the stay, states are not required to submit anything to the EPA, and the EPA will not take any action to impose or enforce any such obligations. For example, the agency has clearly communicated to states that they are not required to make initial submittals on September 6, 2016.

Since the stay was issued, many states have said they intend to move forward voluntarily to continue to work to cut carbon pollution from power plants and are seeking the agency's guidance and assistance. The agency will be providing such assistance, which is not precluded by the stay. In particular, they have asked us to move forward with our outreach and to continue providing support and developing tools, including the Clean Energy Incentive Program (CEIP), the proposed model rules, and the proposed evaluation, measurement and verification (EM&V) guidance. For example, on April 28, 2016, a group of 14 state environmental agency officials wrote to the EPA to request that we provide a final model rule or rules, additional information on the Clean Energy Incentive Program, and other information and assistance. The EPA has received significant feedback on the CEIP and comment on the proposed model rules and EM&V guidance. The agency will move forward developing these actions in a way that is consistent with the stay while providing states the tools they have asked for to help address carbon pollution from power plants. For example, on June 16, 2016, the agency issued a proposed rule for public review and comment that includes details about the optional Clean Energy Incentive Program.

This will help guide states and tribes that choose to participate in the program when the Clean Power Plan becomes effective.

Addressing carbon pollution is a part of the EPA's obligations under the Clean Air Act. Further, the Clean Air Act directs the EPA to engage with states and other stakeholders and to provide technical and financial assistance on all aspects of air pollution prevention and control.

For the states that voluntarily continue work to cut carbon pollution from power plants and seek the agency's guidance and assistance, the EPA will continue to provide tools and support and technical assistance. The EPA also expects to continue to develop electronic systems to support state plan development activities, and other guidance, as appropriate, to support and respond to state needs. Such guidance may include information regarding evaluation, measurement, and verification of energy savings and emissions reductions.

3) There have been numerous claims that the Clean Power Plan alone will not significantly affect climate change. As we know, the Clean Power Plan is but one component of a larger national effort to reduce greenhouse gas emissions which is being carried out in conjunction with the regulatory actions taken by the rest of the world.

   - How does the Clean Power Plan fit into the national and global efforts to reduce greenhouse gas emissions?

   - Do you believe that the Administration's efforts to advance the Clean Power Plan were an important factor in securing the necessary global commitments to mitigate the impacts of climate change in Paris last year?

   - If the next Administration initiated the withdrawal of the Clean Power Plan rule without a significant replacement to address climate change, how might that impact this global agreement? How might it impact U.S. credibility in advancing other international environmental actions going forward?

A: The Clean Power Plan is only one component of a broad set of domestic actions this Administration has put in place or is in the process of putting in place to reduce GHG emissions. These include vehicle fuel economy standards, energy efficiency standards, methane-reducing regulations, restrictions on HFC uses, climate-friendly land management incentives, to name a few. These domestic actions collectively, combined with similar measures in other major economies, contributed to the cooperative tone witnessed in Paris last December.

EPA firmly believes the Clean Power Plan will be upheld when the merits are considered because the rule rests on strong scientific and legal foundations. Regardless, Paris is a long-term global framework, unlike Copenhagen or Kyoto, with iterative rounds of targets every five years. When we sign up to Paris, it means we're in for the long haul. And the United States remains dedicated to phasing down our domestic emissions in keeping with our international commitments.

4) In previous hearings we have heard opponents of the Clean Power Plan cite increased electricity costs as an argument against the rule.

   - Can you please discuss the benefits consumers will likely see from improved energy efficiency standards?

   - Can you also discuss the important role energy efficiency will play in transitioning to a lower carbon economy?

A: In the CPP, EPA did not base the amount of emission reductions fossil fuel-fired power plants are required to achieve on demand-side energy efficiency (EE). However, sources and states may implement EE programs for compliance purposes, and EPA's analysis indicates that because those programs are generally the least cost means to comply, in fact, sources and states can be expected to implement them (see the Regulatory Impact Analysis for the CPP Final Rule: https://www.epa.gov/cleanpowerplan/clean-power-plan-final-rule-regulatory-impact-analysis). With energy efficiency as part of the suite of available compliance strategies, EPA analysis indicates average reductions in electricity bills are projected to be 7-8% in 2030. EE policies are currently used in all 50 states and are leading to significant CO_2 reductions from power plants. In 2015, EE program savings reported to the Energy Information Administration reduced U.S. electricity demand by 5% and the savings are growing at a rapid pace.

5) Some critics of the Clean Air Act have claimed that the EPA does not have authority to regulate carbon dioxide emission from power plants under section 111(d) of the Clean Air Act because it can only regulate power plants under section 112 of the CAA.

   - How would you respond to this criticism?

A: The legal argument in your question is being litigated as part of this judicial review, but it is our reading of the statutory text that it bars EPA from regulating a source category for the same pollutant under both Section 111(d) and Section 112. Under this interpretation, the exclusion in 111(d) does NOT preclude EPA from regulating CO_2 from power plants,

even though power plants are regulated for other pollutants under Section 112, because CO_2 is not a pollutant regulated under Section 112.

6) Critics have suggested that it will be nearly impossible for States to meet the new Ozone standard because of the transport of air pollution from countries like Mexico and China.

   - Do you think the presence of international emissions is a valid reason not to strive for reductions in air pollutants and improvements to our air quality?

   - Does EPA take international emissions into account when setting standards for air quality? If so, how does inclusion of international emissions impact a State's ability to attain air quality standards?

A: First, based on our review of air quality data and projections, EPA does not expect that uncontrollable background concentrations of ozone, from sources like natural (e.g., wildfires) or foreign emissions, will preclude attainment of the ozone standard with a level of 70 ppb. In addition, the Clean Air Act is clear that states are not responsible for reducing emissions over which they have no authority. This includes interstate transport, international emissions, and background emissions such as from wildfires or dust storms. Several provisions of the CAA address those situations and provide for special treatment for areas affected in these ways.

For example, Section 179B of Clean Air Act allows the EPA to approve an attainment demonstration for a nonattainment area if: (1) The attainment demonstration meets all other applicable requirements of the CAA; and (2) the submitting state can satisfactorily demonstrate that "but for emissions emanating from outside of the United States," the area would attain and maintain the ozone standard. The EPA has historically evaluated these "but for" demonstrations on a case-by-case basis, based on the individual circumstances, the classification of the area and the data provided by the submitting state. These data have included ambient air quality monitoring data, modeling scenarios, emissions inventory data and meteorological or satellite data. Due to the fact specific nature of section 179B demonstrations, the process and information required will be dependent on the circumstances of the state or locality in question.

Section 179B ensures that states will take actions to mitigate the public health impacts of exposure to ambient levels of pollution that violate the NAAQS by imposing reasonable control measures on the sources that are within the jurisdiction of the state, to extent required under the Act, while also authorizing the EPA to approve such attainment plans and demonstrations even though they may not fully address the public health impacts of international transport.

Rep. Bonamici Questions for the Record

June 22nd Hearing with EPA Administrator Gina McCarthy

Question 1: Administrator McCarthy, I was encouraged to learn about the recently announced joint climate pledge between the United States, Mexico, and Canada that aims to produce 50 percent of the continent's electricity from clean energy sources by 2025.

Addressing climate change is important to my constituents in northwest Oregon and to the economy of our state. I would like to enter into the record a letter from prominent scientific organizations about the urgent need to take action on this issue. I frequently speak with people whose livelihood is affected by climate change, including people on the coast who rely on a healthy ocean, growers of our famous pinot grapes in Yamhill County, and entrepreneurs who are developing new clean energy technologies. Recently I visited a small business in Beaverton, Oregon. These dedicated business owners used to sell a lot of snowboards; now they are transitioning to skate boards because there's just not enough snow. These Oregonians join the millions of others across the country who are looking for leadership on this critical issue.

How has the willingness of the United States to act decisively on climate change affected the response from the rest of the international community?

A: One of the goals of the President's Climate Action Plan is to demonstrate global leadership on climate change, and as a result of this leadership the United States is not alone in taking action on climate change. Our action is the catalyst for countries around the world to see that the United States is serious and thus to take their own serious steps. I visited China earlier this year and heard about the progress they are making. The Chinese government knows that air pollution is a major domestic public health and economic challenge; knows that climate change is a global threat that requires global action; and knows that addressing the two can go hand-in-hand. The Chinese have set ambitious goals for new clean energy generation, and are putting into place market mechanisms to cap emissions from key sectors. Similarly, the Indian Prime Minister just visited the United States and a key outcome of his meetings with President Obama were more pledges of cooperative work on climate and clean energy. The robust transparency measures included in the Paris agreement will allow us to know how other countries are progressing in achieving the goals that they have set.

Question 2: Oregon has been proactive in its efforts to reduce greenhouse gas emissions. When I was in the state legislature, I helped establish some of the state's carbon emissions reduction goals. And new Oregon legislation will require 50 percent renewables by 2040, and a total phase-out of coal-fired electricity by 2035.

Some contend that environmental regulations might harm the economy. This hasn't been the case in Oregon, where we have a vibrant renewable energy industry. Vestas, a global wind energy

company with its North American Headquarters in my congressional district, just received an order of 1000 wind turbines for a proposed wind farm in Iowa, and a few months ago, an order for 300 turbines for a wind farm in Colorado.

Administrator McCarthy, will you please explain the potential for good jobs in clean energy, including the potential from developing and demonstrating the next generation of clean energy and environmental technologies?

A: Increased demand for clean and efficient energy provides the U.S. with opportunities to innovate, to create that next generation of American-made clean energy and environmental technologies that will be sold in the U.S. and around the world and to support American jobs developing, demonstrating and deploying those technologies. This increased demand, both domestically and internationally, for clean energy technologies increases economic opportunities for the U.S., particularly related to jobs that support clean energy and energy efficiency. These jobs include the workers who manufacture and install solar panels, wind turbines, insulation, high efficiency appliances and equipment, and electric vehicles. It includes the inventors and engineers that design and develop new, cleaner energy technologies. It also includes the workers who retrofit homes and businesses and those that enhance heating and cooling systems to be more energy efficient.

Use of clean and efficient energy is expected to increase in the U.S. According to the EIA in their Annual Energy Outlook (AEO) 2016, total renewable electricity generation is expected to increase from 2015 to 2030 across all regions of the U.S.[1] Total wind and solar generation, without factoring in any impacts of the Clean Power Plan, is expected to double by 2030.[2] Electricity generated from renewables is expected to grow by 9% in 2016 alone.[3] The U.S. added 8.1 gigawatts of wind power capacity in 2015 – and those installations represent a 12.9% increase from 2014 levels.[4]

Energy efficiency programs are also expected to increase in the next decade or more. Lawrence Berkeley National Laboratories (LBNL) projected that by 2025, spending on utility-run energy efficiency programs may double to $9.5 billion but could increase substantially beyond that depending upon how policies are implemented.[5]

According to the U.S. Energy and Employment Report (USEER), there are 600,000 workers employed in low carbon emission technologies, including 200,000 that spend the majority of their time on solar and another 77,000 that are employed at wind firms.[6] According to LBNL, state RPS-related investments in renewables in 2013 and 2014,

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[1] AEO2016, EIA. P. IF-7. https://www.eia.gov/forecasts/aeo/pdf/0383(2016).pdf

[2] AEO2016, EIA. P. IF-10. https://www.eia.gov/forecasts/aeo/pdf/0383(2016).pdf

[3] http://www.eia.gov/todayinenergy/detail.php?id=24792

[4] http://www.eia.gov/todayinenergy/detail.php?id=25172, http://www.eia.gov/todayinenergy/detail.php?id=25912

[5] The Future of Utility Customer - Funded Energy Efficiency Programs in the United States: Projected Spending and Savings to 2025, LBNL, 2013. https://emp.lbl.gov/sites/all/files/lbnl-5803e_0.pdf

[6] USEER, US DOE, 2016 http://energy.gov/sites/prod/files/2016/03/f30/U.S.%20Energy%20and%20Employment%20Report.pdf

supported nearly 200,000 U.S.-based gross jobs in 2013 and drove over $20 billion in gross domestic product (GDP).[7] Additional demand would likely bring additional jobs.

USEER finds that 1.9 million Americans are currently employed, in whole or in part, in the design, installation or manufacture of energy efficient products and services, with 1.2 million of those jobs in the construction industry. An analysis by the Pacific Northwest National Laboratory found that a 15 percent increase in energy efficiency - in residential and commercial buildings alone - could add 320,000 new jobs by 2030. Increased demand for renewables, like wind and solar, and for energy efficiency products and services can bring increased demand for jobs.[8] Many of these are jobs that are performed locally and cannot be exported.

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[7] A Retrospective Analysis of the Benefits and Impacts of U.S. Renewable Portfolio Standards, LBNL, 2016. https://emp.lbl.gov/sites/all/files/lbnl-1003961.pdf

[8] Assessing National Employment Impacts of Investment in Residential and Commercial Sector Energy Efficiency: Review and Example Analysis, 2104. PNNL-23402. http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23402.pdf